Area-Wide Soil Contamination Project

Comments on the Task Force Preliminary Recommendations Due by May 22, 2003

Learn about the Area-Wide Soil Contamination Task Force preliminary recommendations and provide your comments

What is Area-Wide Soil Contamination?

It is low-to-moderate level contamination that is dispersed over a large geographic area. It is distinct from more typical cleanup problems, because it covers large areas (several hundred acres to many square miles) and generally has lower contaminant levels. In many areas of Washington State, soil has low-to-moderate levels of arsenic and lead caused by historical activities and sources. Development activities have created pressures for cleanup and raised a variety of health, environmental, and marketplace concerns. This project was started because traditional contaminated soil cleanup approaches may not be the best way to respond to area-wide soil contamination problems. The State Departments of Agriculture, Ecology, and Health and the Office of Community Development have been working with a Task Force to examine these issues and concerns and develop a statewide strategy. Final Task Force recommendations will be submitted to these agencies on July 1, 2003.

What Has Caused Area-wide Soil contamination?

Arsenic and lead have been deposited in soil over time by a variety of human activities, including use of lead-based paint and leaded gasoline, metal mining and smelting, and use of arsenic or lead based agricultural chemicals. Present-day regulations have controlled these sources; however, arsenic and lead that were deposited by past activities remain in the soil. The Area-Wide project is designed to address contamination that is left over from historic practices – not present day activities. The project is not designed to address current industrial operations or current agricultural practices. These activities are already regulated.

What Do The Task Force Preliminary Recommendations Address?

Over the past year, the Task Force has evaluated concerns about area-wide soil contamination and developed findings and preliminary recommendations on steps that can be taken to better address area-wide soil contamination problems. Their findings and preliminary recommendations (1) describe where arsenic and lead area-wide soil contamination is most likely to be located, (2) provide guidance on assessments and sampling of individual properties, 3) outline a broad-based approach to education and awareness building about arsenic and lead soil contamination, (4) describe steps that should be taken in child-use, residential, and commercial areas and on vacant land to limit exposure to arsenic and lead in soil, and (5) address real estate disclosure issues and application of the Model Toxics Control Act in areas affected by area-wide arsenic and lead soil contamination.

Please read the following descriptions of the Task Force preliminary recommendations and provide your comments by May 22, 2003. A questionnaire is included in this packet to assist you in providing your comments and to gather input on questions of particular interest to the Task Force. Specific instructions on how to submit comments are provided on Page 8. Additional information about the project, and the comment questionnaire, are available on the project web page at http://www.ecy.wa.gov/programs/tcp/area_wide/area_wide_hp.html. The Task Force will consider comments received by May 22, 2003 as they finalize their recommendations. YOUR COMMENTS ARE IMPORTANT!!!

WHAT'S INSIDE:

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Sponsored by Washington State Departments of Agriculture, Ecology, and Health and the Office of Community Development

WHY SHOULD I BE CONCERNED ABOUT ARSENIC AND LEAD SOIL CONTAMINATION?

Extensive scientific information demonstrates that exposure to high levels of arsenic and lead can cause health problems. Arsenic can cause nervous system damage, increased blood pressure, heart problems and cancer. Lead can cause increased blood pressure, kidney damage, and brain damage. Lead is of particular concern for young children. Arsenic and lead bind strongly to soil and usually remain in the environment for many decades. However, the health risks associated with exposure to low-to-moderate levels of arsenic and lead soil contamination are less well understood and disagreements exist between scientists on the interpretation of available information. In recent years, the majority of scientific review committees formed to evaluate available scientific information on arsenic and lead have concluded that there is a sufficient scientific basis for efforts to reduce exposure to these contaminants.

WHAT TYPES OF MAPS ARE BEING RECOMMENDED BY THE TASK FORCE:

TIER 1 maps identify general areas in the state where elevated levels of arsenic and lead soil contamination are more likely to be present based on historic activities. They are designed to raise awareness and help users decide if they need more information.

TIER 2 maps and accompanying information is designed to help individuals refine their understanding based on more detailed, smaller scale maps of smelter plumes and historical orchard areas, where known. When data is not available flow charts and/or informational tools should be available to help individuals determine if area-wide soil contamination is likely to be present on specific properties.

Background on Area-Wide Soil Contamination

Learn about the concerns and nature and extent of area-wide soil contamination

Overview

Soil in many areas of Washington State is contaminated with low-to-moderate levels of arsenic and lead. This contamination often extends over several hundred acres to many square miles. It was caused by a number of historical activities and sources, including past air emissions from metal smelting operations and the use of lead-arsenate-based pesticides in the early 1900s. (The use of leaded gasoline has caused similar contamination along roadways, although its nature and extent has not yet been characterized.) As Washington's population has grown, many areas potentially contaminated by these historical sources have been developed into residential neighborhoods, schools and parks; these changes in land use have raised a variety of health, environmental, and marketplace concerns and created pressures for cleanup. Widespread low-to-moderate levels of arsenic and lead soil contamination present special challenges with respect to human health protection, land use conversion, financial impacts, and residents' awareness.

Characteristics of Area-Wide Soil Contamination

The term "area-wide soil contamination" is used to reference soils with concentrations of arsenic and lead typically found in areas that are close to emission plumes of smelter operation sites, and where lead arsenate pesticides were applied to crops, especially fruit orchards. These areas generally have arsenic and lead levels that are higher than both naturally occurring concentrations and state soil cleanup levels established under the Model Toxics Control Act. The term, "area-wide soil contamination", is meant to distinguish these areas from arsenic and lead typically found on properties where smelters were physically located and areas where lead arsenate pesticides were mixed which tend to have higher levels of associated contamination.

Location and Extent of Area-Wide Soil Contamination

Preliminary estimates of area-wide soil contamination are provided in the table below.

PRELIMINARY ESTIMATES OF AREA-WIDE SOIL CONTAMINATION IN WASHINGTON

Area-Wide Contamination Source	Estimated Land Area Affected
Smelters (Tacoma, Everett, Harbor Island, Northport and Trail, B.C.)	489,000 acres
Orchard Land	188,000 acres
Roadsides	Unknown at present
Total Area-Wide Sources	677,000 acres

Notes: Extent of affected area has not been fully characterized. The total area of land in Washington is about 42.6 million acres.

Task Force Recommendations

In order to raise awareness of the potential for area-wide soil contamination in certain locations in the state and to support evaluations of individual properties, the Task Force recommends that:

(1) **Maps and accompanying information** should be used to describe what is known about the nature and extent of area-wide soil contamination in Washington State. Working with a project support team, the Task Force has developed maps using available data and recommend that these maps be used as a starting point for further map development.

(2) **Additional research on roadside lead contamination** should be conducted to better characterize the location and extent of elevated levels of lead in soil from the past use of leaded gasoline in Washington State.

Broad-Based Education and Awareness Building Recommendations

Learn about the role of education and what techniques are recommended

Broad-based education and awareness building activities comprise the foundation of the Task Force's recommendations for responding to area-wide soil contamination. They support and underlay all other recommendations, including those related to specific land-uses. The goal of broad-based education and awareness building should be to provide individuals, organizations and communities with the information and materials they need to make responsible choices to respond to area-wide soil contamination. The educational information should be balanced to adequately inform citizens about area-wide soil contamination issues, but not create undue concern, fears, and other unintended consequences. The educational activities should be focused on both children and adults who have frequent contact with soil. The most important audiences are people and organizations that care for or work with children, including parents, educators, healthcare providers, and childcare providers, and gardeners and other adults who frequently work in soil.

Task Force Recommendations

To assist individuals and communities respond to area-wide soil contamination issues, the chartering agencies should work with and through local governments, particularly health departments, to increase knowledge of area-wide soil contamination. The goal of broad-based education and awareness building should be to provide individuals, organizations and communities with the information and materials they need to make and act on knowledgeable and responsible choices about responding to area-wide soil contamination. The following recommendations are intended to further this process.

(1) To support broad-based education and awareness building, the chartering agencies should develop a **"toolbox" of information and materials** to help individuals and organizations answer questions about the potential for arsenic and lead contamination at specific properties, as well as identify actions they can take to reduce exposure to arsenic and lead.

(2) To use resources effectively, the agencies should take a **step-wise approach** to providing information about area-wide soil contamination. Steps should include: (1) making available educational materials about area-wide soil contamination to all residents; (2) in areas where area-wide soil contamination is likely, providing routine briefings, workshops and training sessions for local health departments and other appropriate organizations to facilitate informed distribution of educational materials and ensure a solid understanding of health risks and exposure reduction measures; and (3) in areas where area-wide soil contamination is known, providing additional outreach, education and other resources addressing each specific land-use scenario.

(3) The agencies should **monitor and evaluate the effectiveness of education and awareness building efforts** to increase the implementation of good personal hygiene practices and other individual protection measures to reduce the potential for exposure to arsenic and lead in soil. Information gathered during this monitoring and evaluation should be used to improve and update education and awareness building efforts.

The Task Force is recommending that the educational effort be implemented in a step-wise approach that provides basic information to the broader general public, and more detailed information and focused outreach to ensure that awareness is built in areas where contamination is likely and areas where contamination is known to exist.

In addition, the Task Force is recommending that the agencies take specific actions to build upon and complement broad-based education and awareness building by addressing different land-use scenarios which are described on the following pages.

THE EDUCATION AND AWARENESS BUILDING TOOLBOX FOR ARSENIC AND LEAD AREA-WIDE SOIL CONTAMINATION SHOULD INCLUDE:

- Maps and materials describing where area-wide soil contamination is most likely to be found.
- Flow charts and checklists describing how to evaluate the potential for elevated levels of arsenic and lead at individual properties and the potential for exposure
- Guidance on how to collect and analyze soil samples.
- Information on health risks associated with exposure to low-to-moderate levels of arsenic and lead soil contamination.
- Materials that encourage good personal hygiene practices and individual protection measures to reduce exposure.
- Materials that describe individual protection measures for safe gardening.
- Information that describe individual protection measures for utility and other workers who come into contact with contaminated soil.
- Materials describing protective measures that can be taken to maintain good soil cover such as placing woodchips or other materials in areas where children routinely play.

EDUCATIONAL MATERIALS SHOULD BE DEVELOPED FOR THE FOLLOWING AUDIENCES:

- Parents of young children
- Childcare providers and preschool operators
- School officials and operations, maintenance and grounds keeping staff
- Park officials and operations, maintenance and grounds keeping staff
- Gardeners
- Real estate professionals
- Construction, utility and other workers who have routine contact with soil
- Healthcare providers
- Homebuilders associations
- Local planning and zoning officials
- Agricultural workers and landlords with farm unit rentals and picker camps

THE TASK FORCE IS CONSIDERING RECOMMENDING A VOLUNTARY CERTIFICATION PROGRAM FOR DAYCARES.

Where area-wide soil contamination is likely, a voluntary certification program for daycare centers and family home daycares is being considered as a recommendation. The purpose of the voluntary certification program would be to (1) further encourage implementation of child-use area responses at daycare centers and family home daycares, (2) create a mechanism to raise awareness of area-wide soil contamination issues, (3) provide parents and other caretakers with information about how individual businesses have chosen to address area-wide soil contamination issues, and (4) assist parents in making informed choices about where to place their children. The Task Force has considered a number of approaches to voluntary certification for daycares and has not reached final decisions about certification levels or definitions, or how a certification program would be administrated.

Child-Use Areas Recommendations

Learn about the focused recommendations to minimize exposure to children

The Task Force is particularly concerned about exposure of young children to arsenic and lead in soil and, as a result, believes that the chartering agencies should give special attention to child-use areas located in areas where elevated levels of arsenic and lead are likely. Building upon the broad-based education and awareness recommendations discussed above, activities in child-use areas should be focused on (1) identifying situations where children are at risk of exposure to arsenic and lead soil contamination, and (2) taking steps to prevent or limit such exposure. The Task Force believes that local health agencies should be the primary point of contact for helping school districts, parks and recreation departments, daycare operators, and other owners or managers of child-use areas to conduct evaluations of the potential for exposure at child-use areas and take other actions to respond to area-wide soil contamination.

Task Force Recommended Responses

(1) **Individual protection measures to minimize the potential for exposure should be immediately implemented in child-use areas where area-wide soil contamination is likely and good soil cover should be maintained in these areas,** unless (a) qualitative evaluation indicates that elevated levels of arsenic and lead are not significant or that children are not likely to be exposed to the soil; or (b) soil testing shows that elevated levels of arsenic and lead are not present.

(2) **Qualitative evaluations of the potential for exposure to arsenic and lead in soil in places routinely used by children should be conducted** by school districts, parks and recreation departments, daycare operators, and property owners or managers of other child-use areas in order to increase understanding of where exposure could occur.

(3) **The agencies should assist local jurisdictions, other organizations, and individuals in selecting and implementing additional protective measures to complement individual protection measures** where soil sampling results indicate that area-wide soil contamination is present at a child-use area. Outreach activities where area-wide soil contamination is found should balance the need for accurate and complete information with the need to avoid unnecessarily frightening parents and other audiences, or creating unintended consequences or overreactions.

(4) **Public owners and operators of playgrounds and playfields should assume special responsibility for ensuring that children who use these areas are protected.** Special care should be taken to keep playground and playfield soils covered with grass or geotextile fabric barrier with clean material on top to minimize the chance of children coming into contact with contaminated dirt.

(5) **The agencies should work with local health jurisdictions and the Office of the Superintendent of Public Instruction to assist local school officials interpret sampling results and select protective measures during the construction of new school facilities.** Construction of new child-use areas such as schools and playgrounds commonly involves earth-moving activities, which present an important opportunity to address area-wide soil contamination.

Residential Areas Recommendations

Responses at residential areas should be similar to those at child-use areas

Numerous residential properties are within areas of area-wide soil contamination. However, as discussed above, the actual presence and concentrations of arsenic and lead in soil on individual properties will vary widely. Because the distribution of arsenic and lead varies on individual residential properties and because different land development techniques and other activities affect their concentrations, many residential properties within area-wide soil contamination areas may not have elevated levels of arsenic and lead in soil.

The Task Force believes that activities at residential properties should be focused on helping residents understand the potential for elevated levels of arsenic and lead in soil at individual properties, and on taking appropriate response actions. Responses to area-wide soil contamination at residential properties should be similar to, and no more stringent than, the approach described earlier for child-use areas. Activities at residential properties within area-wide soil contamination areas should focus on minimizing the potential for exposure to elevated levels of arsenic and lead in soil. Particular attention should be paid to three populations: children, gardeners, and other adults who frequently work in soil.

Task Force Recommended Responses

(1) **All residents of areas with area-wide soil contamination should implement individual protection measures and maintain good soil cover to limit their potential for exposure to elevated levels of arsenic and lead in soil,** unless (1) qualitative evaluations indicate elevated levels of arsenic and lead in soil are unlikely to exist or that exposure to soil is unlikely, or (2) soil testing shows that elevated levels of arsenic and lead in soil are not present or have been removed or contained.

(2) **Residents within areas of area-wide soil contamination should carry out qualitative evaluations to determine the potential for their property to have elevated levels of arsenic and lead in soil and the potential for exposures to contaminated soil.** The agencies should provide incentives and opportunities for individuals who choose to sample soils on their properties, but at the same time take steps necessary to protect the privacy of residents who choose to take advantage of soil sampling opportunities.

(3) **The agencies should support individuals who choose to implement additional protection measures by providing guidance on low-cost, effective, and practical solutions for containing contaminated soils.** The agencies should also provide information on where and how to (1) dispose of contaminated soil that individuals choose to remove from their properties, and (2) make it easy for residents to locate sources of soil that meets the MTCA cleanup standards for arsenic and lead for use in gardens.

EXAMPLES OF INDIVIDUAL PROTECTIVE MEASURES TO MINIMIZE POTENTIAL EXPOSURE TO ARSENIC AND LEAD IN SOIL:

INSIDE YOUR HOME:

- Take off shoes before entering your home.
- Wash hands and face thoroughly after working or playing in the soil. Use water and soap to wash - avoid "waterless" soaps.
- Wash hands after handling your pet, and bathe pets frequently.
- Wash toddler toys and pacifiers often.
- Wash clothes dirtied by contaminated soil separately.
- Clean surfaces by wet mopping, spraying with water, or vacuuming with a HEPA filter. Don't sweep or blow the surface.
- Change air filters regularly and properly maintain your heating, ventilation, and air conditioning system.
- Maintain painted surfaces in homes.
- Minimize children's exposure to hobbies that use lead.
- Eat a balanced diet, with adequate iron and calcium.

OUTSIDE YOUR HOME:

- Keep children from playing in contaminated dirt.
- Do not eat or drink in contaminated areas.
- Keep pets off of exposed dirt so they don't track it into the house.

SPECIAL CONSIDERATIONS FOR CONSTRUCTION, YARD WORK, AND GARDENING:

- Avoid all unnecessary exposure to soil or dust.
- Dampen dusty soils before gardening or working in soil.
- Wear gardening gloves and protective clothing.
- Keep vegetable gardens away from old painted structures, treated wood, and roof overhangs.
- Scrub vegetables and fruits with soap and water before eating.
- Use caution while eating, drinking, or smoking while in the work area to avoid ingesting dirt.

WHAT IS THE ROLE OF THE TASK FORCE?

The Task Force has been asked to provide findings and recommendations to the chartering agencies on steps that can be taken to better address area-wide soil contamination problems. The Task Force is comprised of 17 members, including representatives of local government, elected officials, agriculture, environment, business/development, financial institutions, and education/schools.

TASK FORCE CONSIDERATIONS:

The Task Force recognizes that there are a variety of views regarding the level of risk associated with low-to-moderate arsenic and lead soil contamination. In light of these views, the Task Force has used the following question to guide their evaluations and recommendation development:

- What are effective, practical, and affordable steps that people, communities, and government agencies might take to reduce exposure to arsenic and lead in soil, particularly for vulnerable populations such as children?

The Task Force also developed a number of **guiding principles** that they have considered during the process:

- At individual properties, area-wide soil contamination generally represents a lower adverse health risk than the higher levels of arsenic and lead typically found on property where smelters were physically located and areas where lead arsenate pesticides were mixed.
- Focus on minimizing exposure of children to area-wide soil contamiation.
- The effectiveness of protective measures should increase as exposure increases.
- Decisions should be made locally.

Vacant Land Recommendations

Different recommendations are provided for vacant lands proposed for development

Vacant land includes undeveloped properties, agricultural land that is no longer in production, and other developed properties that are currently vacant or abandoned. The Task Force focused on the potential for human exposure at two categories of vacant land: (1) vacant land that is being developed into other land uses; and (2) vacant land that is not proposed for development. Ecological concerns are addressed separately.

Task Force Recommended Responses

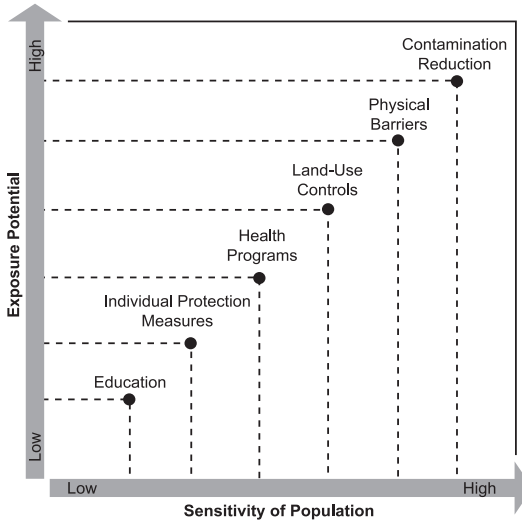
The chartering agencies should encourage individuals to consider potential exposures not only on their properties, but also in other areas where children play, such as vacant properties in or near residential areas, and at other garden or work sites in area-wide soil contamination areas. In addition to broad-based education and awareness building, the Task Force recommends the following activities for vacant land in areas where area-wide soil contamination is likely.

(1) **For vacant land being developed, the Task Force recommends that responses to area-wide soil contamination should be consistent with the responses recommended for the proposed land use, since the proposed land use affects the potential for exposure.** Responses should address people who live near or work at the development site that may be exposed to contaminated soil (including wind-blown dust) during construction and include control of dust emissions. Responses should also address people who may be exposed to contaminated soil after the site is developed.

In areas where area-wide soil contamination is likely, developers should conduct soil testing prior to construction, incorporate appropriate protective measures into site development and construction plans, and implement individual protection measures for workers during construction. Protection measures might include containing contaminated soil under roads, structures, or landscaping berms. Property owners should also be encouraged to use property notices to inform future property owners about whether the property has been sampled and/or whether protection measures are in place. The Task Force believes that local land-use planning and permitting processes should play an important role in ensuring that these activities are implemented and that the State Environmental Policy Act checklist should be revised to include a question about area-wide soil contamination.

(2) **For vacant land not proposed for development, broad-based education and awareness building activities are recommended.** In addition, if the vacant land is located in or near a residential area, property owners should be encouraged to take practical steps (if available) to limit trespassing and to control the potential for wind blown dust.

Relationship Between Intensity of Protective Measure and Potential Exposure



Commercial-Use Areas

No specific response actions are recommendations for commercial use areas

In general, commercial areas are not frequently used by young children for playing, and they tend to be covered with impervious surfaces such as buildings, parking lots, or other man-made and maintained cover such as landscaping bark or gravel. Where these types of surfaces are in place, the Task Force believes that no further response actions are necessary to address area-wide soil contamination in commercial areas.

Model Toxics Control Act (MTCA) Recommendations

Learn about the Task Force recommendation to develop an alternative approach under MTCA for properties affected by area-wide soil contamination

Given the potential extent of area-wide soil contamination, the practical and institutional difficulties of applying the current MTCA framework to so many individual parcels, and consideration of the low-to-moderate levels of contamination typically associated with area-wide soil contamination problems, the Task Force is recommending that Ecology modify its regulations and policies to establish an alternative MTCA approach, which includes:

(1) **An alternative to the traditional site listing process that avoids placing individual properties on the Hazardous Sites List.** Ecology should identify areas where area-wide soil contamination is likely as "area-wide soil contamination zones." The zones should be identified through mapping and/or property category descriptions. At a minimum, these zones should be identified at the section level, using section, township, and range delineations. The identified zones should be updated as more information is obtained. These zones should be included on Ecology's Confirmed or Suspected Contaminated Sites List (CSCS), but should not be ranked or placed on Ecology's Hazardous Sites List. Because the boundaries of area-wide soil contamination are not precisely defined, the CSCS list and maps should indicate that some properties inside the zone may not prove to have arsenic or lead present above MTCA cleanup levels and that some properties outside the zone could have arsenic or lead present above cleanup levels.

(2) **An incentive-based system that encourages individuals to take action to address area-wide soil contamination and provides associated certainty regarding liability for property owners.** Task Force believes that individuals should be given the information and technical and financial support to (1) understand potential area-wide soil contamination risks, and (2) take steps to address the issue consistent with their own lifestyles, property uses, and values. The Task Force recommends that the Agencies' target their broad-based education and awareness building activities within designated area-wide soil contamination zones and support individuals who choose to take action.

To allow for orderly transfers and development of properties, and to maintain property values, Ecology should adopt a new area-wide soil contamination enforcement forbearance policy. This policy should (1) be conditioned upon implementation of individual protection measures and other Task Force recommendations, and (2) provide a reasonable level of certainty for property owners regarding liability within area-wide soil contamination zones.

(3) **Traditional MTCA process remains available.** The Task Force recognizes that there will be some circumstances where (1) property owners may want to use the traditional MTCA process, or (2) Ecology determines that site-specific conditions warrant use of the traditional MTCA process. These situations may include:

- Properties where contaminants other than arsenic and lead are found.
- Properties where there is ground water contamination.
- Properties where arsenic or lead are found at high levels.
- Properties where the owner has implemented what would traditionally be considered a final remedy under MTCA and therefore desires a settlement or other traditional MTCA liability assurance.

The Task Force is also considering an **optional, self-implementing mechanism for recognition that a site is below cleanup levels or that recommended actions have been implemented,** but has not made final decisions about whether such as system is needed or, if needed, how it should be framed and administrated.

REAL ESTATE DISCLOSURE RECOMMENDATIONS:

The Task Force has also been discussing real estate issues related to area-wide arsenic and lead soil contamination. They are considering developing recommendations that would call for use of a real property disclosure form for vacant land, similar to the form now used for most residential properties, and for education of real estate practitioners about the area-wide soil contamination issues, but has not yet completed their deliberations on this issue. Your comments and thoughts on this topic are encouraged. Please see the related question in the enclosed comment questionnaire.

WHAT COUNTIES HAVE BEEN POTENTIALLY MOST AFFECTED BY HISTORIC USE OF LEAD ARSENATE PESTICIDES ON APPLE AND PEAR ORCHARDS?

The following list indicates the County acreage in orchard production during the early 1900s based on review of historic maps. Lead arsenate pesticide may have been used on this orchard acreage and resulted in residual low-to-moderate levels of contamination (Counties with less that 2,000 potentially affected acres are not listed):

Yakima County – 58,050 acres
Chelan County – 30,463 acres
Spokane County – 19,455 acres
Okanogan County – 10,608 acres
Benton County – 7,738 acres
Douglas County – 7,467 acres
Whitman County – 6,819 acres
Grant County – 4,928 acres
Klickitat County – 4,632 acres
Stevens County – 3,542 acres
Walla Walla County – 3,092 acres
King County – 2,700 acres
Clark County – 2,676 acres
Skamania County – 2,376 acres
Pierce County – 2,139 acres

WHAT'S NEXT:

During June 2003 the Task Force will 1) consider the comments received on their preliminary recommendations, 2) continue discussing and refining their recommendations, and 3) develop final recommendations that will be incorporated into a Task Force report that will be submitted to the sponsoring agencies. The sponsoring agencies will then develop proposed measures to implement the Task Force recommendations and provide additional opportunities for public comment.

HOW TO SUBMIT YOUR COMMENTS:

A questionnaire has been included in this packet to assist you formulate your responses. You can provide comments on the Task Force Preliminary Recommendations in the following ways:

- Online: www.ecy.wa.gov/programs/tcp/area_wide/area_wide_hp.html
- Email: dhoo461@ecy.wa.gov
- Fax: 360-407-7154
- Or mail to:

  Dawn Hooper

  Dept. of Ecology

  PO Box 47600

  Olympia, WA 98599-7600

Comments must be received by May 22, 2003.

Ecological Risk Recommendations

Your comments and thoughts on this topic and possible recommendations are encouraged

It has been demonstrated that high levels of arsenic and lead in soils can adversely impact plants and animals. However, the ecological risks associated with area-wide soil contamination zones are less understood. While some laboratory studies have found that low-to-moderate arsenic and lead soil contamination adversely impacts individual plant or animal species, field studies have uncovered healthy plant and animal communities in areas with similar arsenic and lead concentrations. The Task Force has been discussing the variability and complexity of these issues, and is considering developing recommendations on ecological risk, but has not yet completed their deliberations. Your comments and thoughts on this topic are encouraged. Please see the related question in the enclosed comment questionnaire.

Recommendations for Additional Information

The Task Force has recommended that additional health screening be performed

In the process of developing recommendations for responding to area-wide soil contamination, the Task Force had repeated discussions about the implications that elevated levels of arsenic and lead in soil may have for the health of Washington State residents. Based on these discussions, the Task Force understands there is only limited information available on the actual health of Washington residents who, because of where they live, work, or go to school, may be exposed to elevated levels of arsenic and lead in soil. The Task Force is concerned about this lack of health data for Washington residents, particularly with respect to children, who may be at greatest risk.

The Task Force therefore encourages the Washington Department of Health, in partnership with other agencies as appropriate, to expand its use of blood-lead testing, fluoroscopy, or any other appropriate techniques to gather additional information on the health of Washington residents, particularly children, who may be exposed to arsenic and lead. The Task Force believes it is important that the Department of Health look at both arsenic and lead, even though the methodology for evaluating arsenic exposure is still under development.

The Task Force felt so strongly that additional information on the health of Washington residents is needed that it offered this recommendation to the Department of Health approximately mid-way through the Task Force process. The Task Force acknowledges and appreciates the Department of Health's concern about the practicality of implementing this recommendation and about the need to apply the precautionary principle to potentially exposed populations. Nonetheless, the Task Force continues to feel strongly that gathering additional information on the health of Washington residents in an important element of continuing to refine understanding of the effects of area-wide soil contamination and thereby focus response actions over time.